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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,351	02/10/2004	Warren M. Farnworth	6105US (03-0885.00/US)	3156

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EXAMINER	
KOCH, GEORGE R	

ART UNIT	PAPER NUMBER
1734	

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/775,351	FARNWORTH, WARREN M.	
	Examiner	Art Unit	
	George R. Koch III	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4, 8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-3 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Takamori (US 6,319,317 B1)

Ushijima discloses system for selectively depositing a material on a previously formed workpiece, comprising a platform (Figure 4, item 52) for supporting the workpiece during a deposition process, a sensing system (Figure 4, item 105) for measuring an upper surface of the workpiece and a surface level of a material deposited on the upper surface of the workpiece until the surface level of the material corresponds to a specific thickness of the material (see, for example, column 12, lines 50-63); and a deposition system (item 86) for depositing the material on the workpiece to the specific thickness as monitored by the sensing system (see column 11, lines 53-58, and column 13, lines 42-53). The sensor measures the "spreading state" and therefore is a continuous measurement system. The apparatus can operate on the claimed die and claimed surfaces.

This sensing system for measuring an upper surface is consider capable of measuring and upper surface *over a semiconductor die including the upper sufances and including a previous material previously deposited thereon.* This apparatus in

Takamori is considered *capable* of coating any type of substrate, including the claimed *semiconductor die including a previous material previously deposited thereon.*

As to claim 2, Takamori discloses that the deposition system is a spin-coating deposition system (see Figure 2, and especially claim 1, line 2, which discloses that the apparatus including "means for rotating a substrate").

As to claim 3, Takamori discloses that the sensing system includes a sensor (item 105) for both measuring the upper surface of the workpiece (prior to deposition) and for monitoring the surface level of the material deposited on the upper surface of the workpiece (during deposition). Takamori discloses measurement of the "spreading state" of the dispensed solution, which is a measurement of the before, during and after of the thickness or lack of it.

As to claim 8, Takamori discloses coating a semiconductor wafer (recited, for example, at column 1, line 10-11). Takamori is specifically directed to coating a semiconductor wafer with a resist film.

Claim Rejections - 35 USC § 103

3. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Takamori as applied to claims 1-3 and 8 above, and further in view of Whitman (US 6,642,155).

As to claim 4, Takamori discloses measuring the upper surface of the workpiece and the surface level of the deposited material (see rejection of claim 3 above), but does not disclose using separate sensors for each function.

However, Whitman discloses that it is known in measuring the thickness during spin coating operations to utilize multiple sensors. Whitman uses to the multiple sensors to track coated and uncoated areas in order to properly coordinate the coating operation (as described in column 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such sensors in order to achieve coordination of the coating operation.

Response to Arguments

4. Applicant's arguments with respect to claims 1-4 and have been considered but are moot in view of the new ground(s) of rejection. Takamori has been applied to the "continuous measurement" element that is newly added.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-866-377-8642 and giving the operator the above TDD number. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

George R. Koch III
Primary Examiner
Art Unit 1734

GRK
3/20/2006